



## DATA ACTIVE ON-DEMAND-TRANSMISSION SYSTEM

1. FIELD OF THE INVENTION

[0001] The present invention relates to a data active on-demand-transmission system, wherein by communication transmission technology, the data catalogue of the service provider is actively transferred to a personal digital assistant for being browsed and selected by the personal digital assistant.

2. BACKGROUND OF THE INVENTION

[0002] With the progress of technology, under the combination of customer' electronic products and communication technology, the speeds of data transmission, for example broadcasts, televisions, and telephones are quicker and quicker.

[0003] In a communication transmission, there is a supply end and a demand end so as to be connected and then formed as an integrated structure. Fig. 1 is a block schematic view showing conventional technology for transferring a data signal, the demand and supply ends are represented by a plurality of customer ends 10, 14. Each of the customer ends 10, 14 may be a demand end or a supply end demand on the input or output. A server 12 and a plurality of base stations 11, 13 are connected to the plurality of customer ends. The data from the customers are processed and transferred through the servo 12 and the plurality of base station 11 and 13 so as to achieve the object of communication.

[0004] The example of conventional technology is a simple process for communication. However, this is a passive service which does not satisfy consumers. Although, the customer's end 10 and 14 can be replaced by service providers, it is prevented from supplying a demanding request. In order to provide optimum service quality, a better system service module is necessary.

### SUMMARY OF THE INVENTION

[0005] The primary objective of the present invention is to provide a data active on-demand-transmission system for solving defects in the prior art. In the present invention, the service required by the customer is to th customers without  
5 interfering customers. The customer need not disclose a request for acquiring a service catalogue.

[0006] Another objective of the present invention is to provide a data active on-demand-transmission system. In the aforesaid prior art, a plurality of customer ends transfer data through a server and base stations. The plurality of customers  
10 may be connected to a server of the system service provider. By the server and base stations to transfer data, a service is provided to the connected customer end. In the present invention, in the flow process for each component of the data catalogue between the server and customer end is controlled so that the data server may actively provide a required service to the customers. Thus, the customers may  
15 select an item conveniently.

[0007] Preferably, a system servo between the data server and the customer receiving end serves to receive all data from the data server, after arrangement and integration, a proper data catalogue is formed. Then, a proper designed transmission interface transfers the data catalogue to the customer receiving end  
20 for browsing by the customer.

[0008] Preferably, in the data processing of the data active on-demand-transmission system of the present invention, after receiving the data, then the data is arranged and integrated, then the data is transferred through a transmission interface, and then is browsed by the customer.

[0009] Preferably, after the customer reeves the data catalogue, the service provider provides product catalogue and then is displayed on a screen. Then, the customer utilizes a selection command, transfers order data and an acknowledge operation is performed.

[0010] Preferably, by using a broadcast technology and a one-to-many transmission protocol, the data catalogue is actively transferred to an objected receiving end. Therefore, a resource of a bandwidth consumed in bidirectional transmission is saved. Furthermore, in an active transmission, by an on-demand-  
5 transmission protocol, a optimum integration and adjustment are performed between the demand end and the supply end.

[0011] Preferably, in the present invention, either by Internet to transfer the data catalogue, or by a personal digital assistant receiving the data catalogue from a wireless transmission, the customers can select service items. Moreover, by the  
10 wireless application protocol (WAP), the data active on-demand-transmission system of the present invention can be achieved.

[0012] The various objects and advantages of the present invention will be more readily understood from the following detailed description when read in conjunction with the appended drawings.

## **BRIEF DESCRIPTION OF THE DRAWINGS**

[0013] Fig. 1 is a block schematic view of a communication transmission in one embodiment of the present invention.

[0014] Fig. 2 is a front schematic view for the application of personal digital assistant in the present invention.

[0015] Fig. 3 is a block schematic view for the communication transmission in the embodiment of the present invention.

[0016] Fig. 4 is a schematic view about the data processing in the embodiment of the present invention.

[0017] Fig. 5 is a flow diagram showing an acknowledge of order in the  
25 embodiment of the present invention.

## **DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS**

[0018] In the data active on-demand-transmission system of the present invention, a proper receiving device, such as personal digital assistant (PDA), displays a catalogue data. Then, the selected service item is transferred back to the

service provider for performing proper work. When providing catalogue data, it is unnecessary for the customer to inform the network system service provider about the required data. This data is directly provided by the network service provider for improving the quality of service and reducing the time consumed by the customer.

5           [0019] Since the present invention is about a processing system for communication transmission, in practical application, it needs to use a wireless or wired consumer electronic device, such as mobile phones, pagers, Internet, and others. In the embodiment of the present invention, a multiple-functional personal digital assistant is used. With reference to Fig. 2, a personal digital assistant is employed. The personal digital assistant includes a display screen 20 which displays the data catalogue. A direction selection unit 21 and an input key 22 are formed below the display screen 20. The direction selection unit 21 is installed with a left key 23, a right key 26, an up key 25, a down key 25. The keys, 23, 24, 25 and 26 serve to control the movement of cursor. As the selection work is accomplished, 10 the input key 22 serves to select a working item. The personal digital assistant further includes a sensor pen 27. By directly touching the items of the display screen 20, a respective work is performed.

          [0020] Referring to Fig. 3, a block schematic view for one embodiment of the present invention is illustrated. It is appreciated that in the communication 20 transmission, all the data catalogue is provided by a data server end 30, and a system server 31 serves to integrate the data. A first transmission interface 32 serves to play the data. The customer receiving end 34 is used to receive and display the data catalogue. In the customer receiving end 34, a personal digital assistant 20 in Fig. 2 is employed to receive and display the data catalogue.

25           [0021] In Fig. 3, a signal transmission is performed between the system server 31 and the customer receiving end 34. The system server 31 receives and integrates the catalogue data from the data server 30. By a proper transmission interface, the catalogue data is actively transmitted to the personal digital assistant of the customer receiving end 34. The transmission interface has the first 30 transmission interface 32 and a second transmission interface 33. The system server 31 receives the catalogue data from the data server 30. The data catalogue

is transferred by a proper transmission interface. The first transmission interface 32 has a one-to-many transmission mode. By an active transmission, the signals are transferred to many customers 34. The second transmission interface 33 performs a one-to-one transmission by a system setting in the customer receiving end 34. By the data transmission mode in the second transmission interface 33 the transmission data is kept secret.

[0022] The catalogue data transferred by the first transmission interface 32 is selected and confirmed. Then, the signal is output through the signal transmitting unit in the personal digital assistant of the customer receiving end 34 to inform the system server 31 to analyze the signal and a proper processing request is returned back to the data server 30. Therefore, in performing a selection, the system server 31 performs a proper data processing operation by frequently communicating with the data server. The system server 31 actively and continuously transfers data catalogue to the customer receiving end 34 through the second transmission interface 33. From the customer receiving end 34, the selected data item is transferred back to the system server 31. The selected data catalogue is transferred back to the system server 31. The selected data item is transferred directly to the system sever 31 through the second transmission interface 33, and it is unnecessary for the signal transmission to pass through the first transmission interface 32.

[0023] Referring to Figs. 2 and 3, the personal digital assistant used in the customer receiving end can be connected to an I / O port of a computer through a signal transmission line. After setting a communication protocol, the data is transferred through a communication module of Internet. As the signal is transferred, an application specific integrated circuit (ASIC) is installed in the personal digital assistant. This application specific integrated circuit outputs proper selecting items for providing a one to one acknowledge operation.

[0024] Referring to Fig. 4, a schematic view of the data processing in the embodiment of the present invention is illustrated. The data server outputs all data to the system server. The system server performs the following operation for transferring data catalogue to the customer receiving end;

1. Data input 40: the data server output catalogue data, and the system server serves to input data.
2. Data arrangement 41: the catalogue data is put in order and classified for expanding the catalogue contents of the data catalogue.
- 5 3. System integration 42: an stacking work for transmission data is performed and then the data is transferred to the transmission interface.
4. Transmission 43: The data is transferred through a transmission channel.
- 10 5. The customer receives a signal 43.

[0025] In the step of data processing, the system servo classifies the catalogue data and by a ramification (or arborization) classifying structure, the system construction is arranged in order. As the data is transferred and played, by  
15 wired and wireless transmission technology, the data transmission is performed,

[0026] Referring to Fig. 5, a flow diagram for assuring an order in the embodiment of the present invention is illustrated. The customer receiving end receives the data catalogue actively transferred from the transmission interface, then the acknowledgment of an order is processed by following step:

- 20 1. Displaying product catalogue 50: the display screen of the personal digital assistant of the customer receiving end displays the data catalogue processed by the system server.
2. The order selection 51: a selection operation is performed through a selection way provided by the personal digital assistant. If the  
25 selection work is not performed, the system servo actively transfers data catalogue by a proper transmission interface.
3. Transmission of order data 52: after the customer accomplishes the selection operation for ordering, then the proper signal output is performed by a personal digital assistant.

4. Verification operation 53: the system servo verifies the transferred order data. If the data is wrong, then the customer selection operation is re-performed.
5. Order verification 54: assure that the order is correct, and the overall operation is complete.

[0027] In the order acknowledge step illustrated in Fig. 5, a special series number in the application specific integrated circuit (ASIC) in the personal digital assistant is used to provide an acknowledge number for the order to acknowledge the work.

[0028] The present invention is thus described, it will be obvious that the same way be varied in many ways. In practical application, the present invention is not confined to be accomplished by a personal digital assistant. Since the progressive of the current communication technology, the transmission mode of the present invention can be used in the transmission of the computer Internet or wireless application protocol (WAP) in the mobile phones, or general pagers, cable TVs. The system service provider can provide the information and service required by the customers to the customers. Such variations are not to be regarded as a departure from the spirit and scope of the present invention, and all such modifications as would be obvious to one skilled in the art are intended to be included within the scope of the following claims.